REMARKS

Claims 1-3 and 5-20 stand rejected under 35 U.S.C. § 103(a) for being unpatentable over Patent Publication No. 2002/0155348 to ***Gitto***. Claims 1-3 and 5-19 remain in the application. Claim 20 has been canceled.

The Examiner asserts that ***Gitto*** discloses a plastic material for formulating a battery casing comprising in various configurations a thermoplastic composition comprising a homopolymer, a copolymer, and ammonium polyphosphate. The Examiner further asserts the thermoplastic compositions may also include fillers such as aluminum trihydrate, hydrated magnesium, or hydrated calcium cilicate.

The Examiner further asserts that ***Gitto*** discloses that antioxidants may also be used in the compositions and include tetrakismethylene, propionate and/or octadectyl-3-methane; a blend of tetrakismethylene, propionate/tris, phosphite/di-stearyl-3, 3'-thio-dipropionate; also a thermal heat stabilizer and a metal deactivator. Furthermore, the Examiner acknowledges that examples of fire retardants mixed with the polymer components include halogenated compounds having a high concentrate of halogen including phosphorous compounds, such as derivatives of phosphoric acid and polyphosphoric acid, and agents formed of metal derivatives, such as hydrated alumina, magnesium hydroxide, etc. Furthermore, the Examiner asserts that ***Gitto*** discloses one embodiment that is non-halogenated, low smoke, low corrosive, flame retardant composition with an overall performance that is superior to halogenated composition. Still further, the Examiner acknowledges that ***Gitto*** also documents the use of hydrated alumina and suggests the use of polyolefins as polymeric binder material. Finally, the Examiner asserts that the homopolymer and copolymer of ***Gitto*** is used at a 33-35% range by weight and that ammonium polyphosphate (a nitrogenous gas generating agent) is used from 25-27% by weight

of the composition. The Examiner asserts that these ranges are found not in the specification but in claims 6 and 7, and claim 9 respectively.

Based upon the chemical components disclosed in ***Gitto***, the Examiner indicates it would be obvious to one of ordinary skill in the art to determine optimal weight percentages for hydrated magnesium (water vapor generating agent), antioxidant, and fillers or reinforcing agents.

Applicant respectfully asserts that not only are these remaining components not provided weight percentages in the ***Gitto*** reference, each are not disclosed in the ***Gitto*** reference. Therefore, Applicant respectfully asserts that based upon the ***Gitto*** reference, the weight percentages for these components are not obvious to one of ordinary skill in the art, but that ***Gitto*** fails under 35 U.S.C. § 103(a) for not disclosing each and every element recited in the present application.

Specifically, the Examiner directs the Applicant to claims 6, 7, and 9 who derive the homopolymer and copolymer included in any formulation of between 33-35 percentage by weight. Claims 6 and 7 are dependent claims depending from claim 3 that recites the homopolymer recited in independent claim 2 includes polyethylene. As these weight percents are not clearly disclosed in the specification, it is unclear whether the reference to these weight percents is for a halogen based or halogen free system, which is a necessary element of independent claims 1 and 14 of the present application.

Independent claim 1 of the present application further recites, "5-25 parts of a nitrogenous gas-generating agent selected from the group *consisting of* amines, ureas, guanidines, guanamines, s-triazines, amino acids, salts thereof, and mixtures thereof, wherein the salts are selected from a group consisting of phosphates, phosphonates, phosphinates, borates,

cyanurates, sulfates and mixtures thereof." First, the range recited in claim 9 of the ***Gitto*** reference is between about 25 and 27 parts by weight wherein independent claim 1 of the present application is below that range, specifically 5-25 parts by weight. As independent claim 1 uses the phrase "consisting of," independent claim 1 specifically limits the chemical constituents to those recited, which excludes ammonium polyphosphate. Additionally, this lower percentage by weight recited in independent claim 1 is only made possible by the use of 10-35 parts of water vapor-generating agent that, in the absence of a halogen, works in conjunction with the 5-25 parts of nitrogenous gas-generating agent to perform as a fire retardant. ***Gitto*** fails to even mention the use of a water vapor-generating agent and, therefore, the reference fails to disclose all of the elements as recited in independent claim 1. Furthermore, 1-5 parts of an antioxidant is recited in independent claim 1 of the present application further benefiting the use of water vapor-generating agent enabling the composition to be used as a fire retardant. Nowhere does ***Gitto*** mention the use of an anti-oxidant, and in particular, in combination with a water vapor-generating agent.

Given the deficiencies of the disclosure in the ***Gitto*** reference, Applicant respectfully asserts that not only can the composition recited in independent claim 1 not be found in the ***Gitto*** reference, the ***Gitto*** reference lacks all of the elements to render independent claim 1 of the present application obvious to one of ordinary skill in the art. Accordingly, Applicant respectfully asserts that independent claim 1 is patentable over the Gitto reference.

Independent claim 14 of the present application recites "15-25 parts of a nitrogenous gas-generating agent selected from the group *consisting of* an ammonium salt, amelamine salt, or mixtures thereof, wherein the salts are selected from a group *consisting of* phosphates, phosonates, phosphonates, borates, cyanurates, sulfates and mixtures thereof." Independent

claim 14 further recites 20-30 parts of a water vapor generating agent and 1-5 parts of an anti-oxidant. Applicant asserts as stated above, that it is unclear whether the composition set forth in the ***Gitto*** reference are directed toward a halogen or non-halogen based composition. In order to eliminate the halogen from the intumescent fire retardant system, Applicant, as stated above, recites 20-30 parts of water vapor generating agent and 1-5 parts of an anti-oxidant both of which work in conjunction with 15-25 parts of a nitrogenous gas generating agent to enable the recited composition to act as a fire retardant in the absence of halogen. Because ***Gitto*** fails to even disclose a content of water vapor generating agent in combination with an anti-oxidant, Applicant respectfully asserts that it is not obvious to one of ordinary skill in the art to derive these compositions because the ***Gitto*** reference fails to even mention the inclusion of these components. Accordingly, Applicant respectfully submits that independent claim 14 is not obvious in view of the ***Gitto*** reference.

Because claims 2-3, 5-13 and 15-19 each depend from claims believed to be allowable, Applicant respectfully submits that each of these claims are also in a condition for allowance.

The Commissioner is authorized to charge our Deposit in the amount of $1,050.00 as required for the filing of this Amendment. Also, if there are any additional fees due, the

Commissioner is authorized to charge our Deposit Account for those additional fees or credit the account for any overpayments regarding this Amendment.

Respectfully submitted,

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Dated: October 3, 2007

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the attached **Amendment and Request for Three-Month Extension** are being facsimile transmitted to the Commissioner for Patents and Trademarks, Alexandria, Virginia, to the attention of **Examiner Kriellion Antionette Sanders** from **Group: 1714** to facsimile number **(571) 273-8300** on **October 3, 2007.**

Tracy L. Smith